

PROPOSED POWER PLANT

Threat to ecology of Sundarbans

BITTER TRUTH



MD. ASADULLAH KHAN

THE World Heritage Convention has the responsibility of protecting outstanding natural and cultural areas that form a part of the heritage of all mankind. Bangladesh became a party to the Convention in 1983. The Convention ruled favourably on the nomination of a part of the Sundarbans as a World Heritage Site.

Environmentalists and nature lovers felt deeply disturbed when they learnt about setting up of a 1,320 MW coal fired power plant at Rampal just 14 km away from the Sundarbans. Coal-based power plants create serious environmental pollution. No country would allow them to be set up even within 20 to 25 km distance from either forest or agricultural or residential area. How could the Environmental Impact Assessment (EIA) group approve it even after acknowledging the dangers it held? The area is linked with the Sundarbans by a network of rivers and canals and environmental degradation of this area caused by the power plant will definitely spread to the Sundarbans region.

The Sundarbans region is an 'ecologically critical area.' EIA, in its impact assessment report, admits that the 142 tons of sulphur dioxide and 85 tons of nitrogen dioxide that will be emitted daily from the plant will increase the concentration of Sulphur Dioxide (SO2) and Nitrogen Dioxide (NO2) in the air near the Sundarbans. Even after admitting that so much emission will be destructive for the



whole environment of the Sundarbans region, they take the defence that on a 24 hour basis 53.4 microgram of SO2 per cubic metre does not exceed the 80 microgram per cubic metre, which is an allowable limit set by the MoEF for residential and rural areas.

The argument is confusing because the mangrove forest is not a residential area by any reasoning, criteria and consideration. In the same vein, it claims that although the concentration of nitrogen dioxide would increase three-fold from 16 microgram per cubic metre to 51 microgram per cubic metre, it is still safer and much below the Environmental Conservation Rule 1997 (ECR). Actually, the emission standards set for ecologically sensitive area is 30 microgram per cubic metre both for SO2 and NO2, which is much below the resultant concentrations that are likely to be released from the plant. It defies logic to treat the Sundarbans, the largest mangrove forest, a

Ramsar site and Unesco World Heritage Site, as a residential area instead of an ecologically critical and sensitive area.

The Fayette coal-fired power plant constructed in 1979 in Texas, USA, with an initial generation capacity 1,230 MW, which was later raised to 1,641 MW, has started to take its toll now. At that time Environmental Impact Statement (EIS) in Texas region had ensured that there would be no adverse impacts on the nearby pecan orchards and other vegetation. Annual emission of Fayette plant comes to about 30,000 tons—a daily average of 82 tons. In December 2010, plant experts, scientists, and environmentalists stated that SO2 pollution from Fayette coal-fired power plants is slowly killing vegetation across Texas. Yielding to public demand, Texas Power Authority has taken up a plan to shut down the plant before 2020.

If annual emission of 30 thousand tons of

SO2 from Fayette power plant could destroy vegetation as far away as 48 km, then what might be the impact of 52 thousand tons per year of SO2 emission from the Rampal plant on the vegetation of the Sundarbans, which is just 14 km away from the proposed plant site? Evidently, the emission from the plant will have a devastating impact on the whole mangrove food chain.

Unesco's evaluation committee also said that the forest supports a wide range of flora and fauna, including the Bengal Tiger, and is a significant example of processes monsoon rain, delta formation, tidal influence and plant colonisation.

Citizens and environmentalists have to be worried about the proposed plant when the forest is already facing threats from pollution, lack of monitoring, ignorance, poaching, lack of implementation of laws, and illegal wild life trade.

As far as is known from sources close to the planners of the power plant, it is likely to burn 4.75 million tonnes of coal annually and some 3 lakh tonnes of ashes and 5 lakh tonnes of sludge or liquid waste would be produced. It would also produce a good amount of carbon dioxide -- key factor for global warming -- and some other toxic gases and airborne particles, according to Union of Concerned Scientists, a USA-based group.

The project will use deep tube wells for washing coal -- drawing around 25,000 cubic metres of water every day -- which will push the ground water level down. Moreover, it will discharge used hot water -- treated or untreated -- into the river, threatening the availability of drinking water. The ground water and Passur river water will also be polluted by the huge amount of waste produced by burning coal. The liquid waste contains hazardous arsenic, mercury, cadmium and chromium.

How can the government set up the plant so close to the Sundarbans when EIA report says that it would devastate shrimp farms, inter-tidal areas, and tidal creeks which are used as fish habitat? Construction work including land filling by dredging, sand lifting, site clearance will have impact on open water fish habitats and fish diversity, polluting rivers Passur and Shela and inter-tidal areas due to oil and chemical spillage. The EIA report expresses concern that if navigational spillages, noise, speed lighting, and waste disposal rules are not properly maintained they may impact the Sundarbans ecosystems.

If, for example, the leaves of kewra trees are affected due to SO2, the effect will not remain confined just to kewra trees. Spotted deer of the Sundarbans eat kewra leaves, so the impact on kewra trees would spill over to the deer population via the food chain, which in turn would have resultant effect on Royal Bengal Tigers as well.

Water, at the rate of 9,150 cubic metre per hour, will be drawn from the Passur river for operating the project, and 5,150 cubic metre per hour will be discharged into the river. The impact of this withdrawal and discharge has not been studied, because the amount of water to be withdrawn will be less than 1% of the lowest flow condition of the river Passur, ignoring the climatic change upheaval and Farakka Barrage effect that has reduced the flow pattern in all the rivers of Bangladesh.

The most salient feature about coal-based thermal power plants is that zero-discharge policy is followed because no amount of treatment can ensure that original water quality will remain intact. NTPC, which will build the power plant, are maintaining this standard while building the 1,320 MW coal-based thermal power plant at Chattisgarh in India.

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Snowden causes strain in US-Russia relations

MAHMOOD HASAN

WASHINGTON is angry with Moscow for granting asylum to Edward Snowden. On June 5, 2013, Snowden leaked to The Guardian stories that revealed how US National Security Agency (NSA) collected telephone metadata and conducted internet surveillance through a programme called "Prism." Snowden left US on May 20 and went into hiding in Hong Kong. On June 14, US federal prosecutors charged him with espionage and theft of government property. When the US issued his arrest warrant, Chinese authorities refused to comply. Sensing an ugly diplomatic confrontation with the US, Hong Kong authorities allowed Snowden to leave Hong Kong and fly to Moscow on June 23.

As Snowden had no Russian visa he was stranded in the transit zone, wondering where to go next. Meanwhile, angry Washington revoked his passport and requested Moscow to extradite Snowden to US. There is, however, no extradition treaty between the two countries. From the airport, Snowden started to look for a place which would grant him asylum. Nicaragua, Venezuela and Bolivia offered to grant asylum to him.

Bolivia's offer was preceded by an unpleasant diplomatic incident when the Bolivian president's flight back from Moscow was forced to land in Vienna on July 2 and searched by the Austrian authorities, suspecting that the aircraft was carrying Snowden. It was a gross violation of the international law that protects presidential aircraft. On returning home, Morales offered to grant asylum to Snowden.

Marooned at Moscow airport, Snowden requested Russia for asylum. President Vladimir Putin was weighing all the pros and cons of granting asylum to this high-profile fugitive. At last, on August 1, Moscow announced that it was granting visa to Snowden to enter Russia and stay for one year. The news came as a shock to Washington. US State Department described the Russian decision as "an extremely disappointing step." Irked, the White House quickly announced cancellation of the summit meeting between President Obama and President Putin,

scheduled in Moscow before the G-20 Summit (September 5-6) in St Petersburg. Actually, Obama had no option but to call off the summit to show his displeasure, keeping the American domestic politics in mind.

Since Putin became president of Russia for the third time in May 2012, relations between Moscow and Washington have been quite rocky. There are reasons for Putin's resentment towards the West. National Endowment for Democracy, based in Washington, spent more than \$4 million for anti-Putin demonstrations through different Russian NGOs during the 2012 presidential election. That led Putin to ban several US-funded NGOs in Russia. Opposition political parties accuse Putin of being authoritarian. His anti-American rhetoric is much more pronounced now than it was during his earlier terms.

Disagreements over Syria, the new START

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treaty, cooperation on Afghanistan and Iran, trade issues and human rights have been there for long, with little scope for resolution. Actually, the disagreements have widened over Syria and Iran. The bilateral meeting between Obama and Putin at the G-8 summit in Northern Ireland in June was anything but cordial.

China, often accused by the US administration of spying on American defence establishments, was outraged when Snowden revealed to South China Morning Post that NSA had led thousands of hacking operations in China. China is asking for explanations from Washington.

Snowden has also revealed that NSA spied on European offices in the US and Europe. Even Britain's Government Communication

Headquarters (GCHQ) was accused of gathering information via "Prism." A total of 38 embassies have been targets of US spying operations.

Why did Putin decide to grant asylum to Snowden? The Russians definitely want to know more about the US intelligence machine and no one could be handier than Snowden. Snowden will no doubt be grilled by FSB, successor of KGB. Moscow knew that the move would invite onslaughts from Washington but Putin thought it worth the risk. No other country granting asylum to Snowden could have withstood the rage of Washington.

The Snowden leaks and US army soldier Bradley Manning passing classified material to Julian Assange's WikiLeaks show the vulnerability of the US intelligence machinery. Snowden is a fugitive in Russia, while Assange is holed up in the Ecuadorian Embassy in London. Manning is awaiting sentence after court martial in US.

All states have secrets, but they need to know how to protect those secrets. The Snowden saga has kicked off an energetic debate over privacy rights of individual citizens and national security. One wonders where the line between the two should be drawn.

Though the two presidents will not be meeting, the silver lining is that both Russia and the US are talking to each other. On August 9, US Secretary of State John Kerry met Russian Foreign Minister Sergei Lavrov in Washington. Kerry said that he had some "challenging moments" with his Russian counterpart. Lavrov commented: "We need to work as grown-ups."

When Barack Obama won the election in 2009 his administration promised to "reset" political and economic relations with Russia. That "reset" seems to have gone awry. Instead of moving forward the two countries seem to be moving backwards -- with the possibility of a new era of 'Cold War.' The Snowden affair is the catalyst for the current strains in Russia-US relations, which is not good for either of them. Both Washington and Moscow need to establish a working relationship between themselves.

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ACROSS

- 1 Doctrine
- 4 Commotions
- 8 Mid-May honorees
- 12 Cattle call
- 13 "Arrivederci"
- 14 "So be it"
- 15 Wordplay specialists
- 17 Hindu royal
- 18 Locate
- 19 Piece of cheese-cake?
- 20 Subsequently
- 22 Reedy
- 24 Concoct
- 25 Good news for bargain hunters
- 29 Bard's "always"
- 30 Unrefined
- 31 Id counterpart
- 32 Ruins
- 34 Touch
- 35 Cincinnati team

36 Gets up

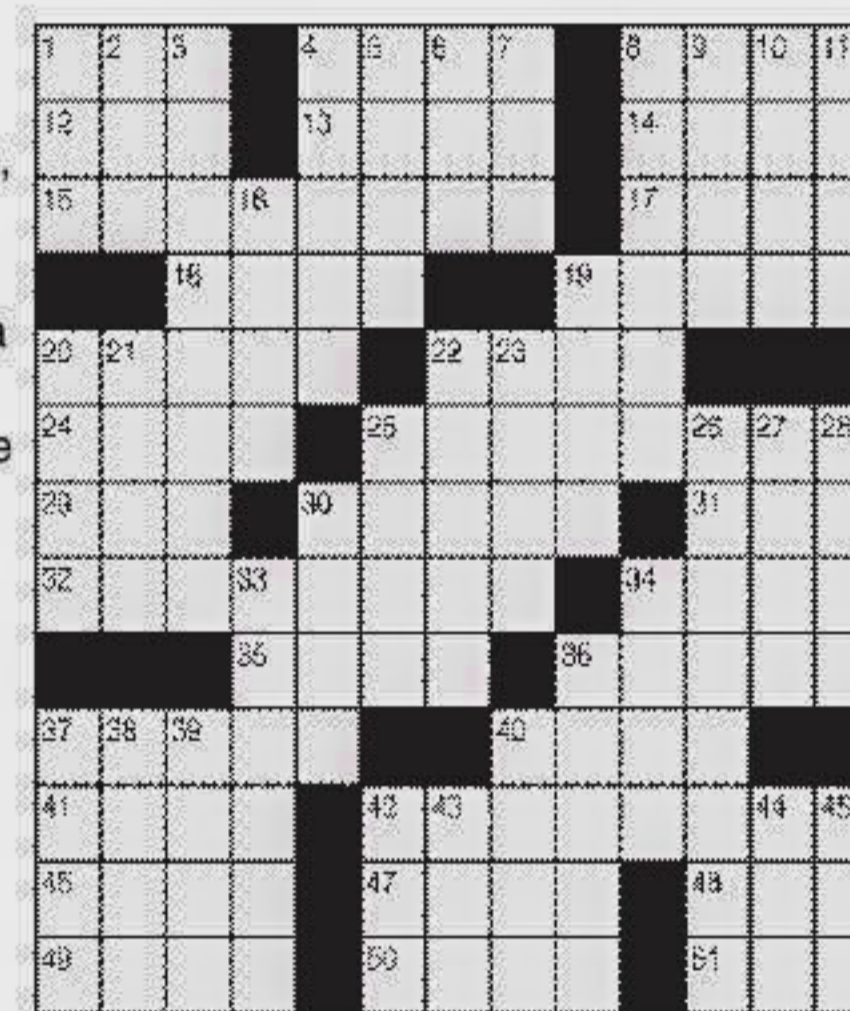
- 37 — Valley (California ski resort)
- 40 Family member
- 41 Cather's "One of —"
- 42 Expensive seafood
- 46 Platter
- 47 Between jobs
- 48 Carnival city
- 49 Remain
- 50 Ball-bearing items
- 51 Agent

DOWN

- 1 Mischievous tyke
- 2 Old French coin
- 3 2001 movie, "—, Inc."
- 4 Thespian
- 5 Regimen
- 6 Scull tool
- 7 "Mayday!"
- 8 Leather-neck
- 9 Mideast nation
- 10 Options list
- 11 Use scissors
- 16 Gush forth
- 19 Snapshots
- 20 Sleeping, perhaps
- 21 Release
- 22 Cafeteria stack
- 23 Greet the villain
- 25 Motivate
- 26 "— Dictionary"
- 27 Chills and fever
- 28 Deteriorates
- 30 Staff
- 33 In poor taste
- 34 "— She Sweet?"
- 36 Strategic tricks
- 37 Turfs
- 38 Resign
- 39 — Major
- 40 Competent
- 42 Illuminated
- 43 Rhyming tribute
- 44 Tear
- 45 Tofu base

Solution time: 25 mins.

Table with crossword clues and answers. Includes a section for 'Yesterday's answer 6-28'.



CRYPTOQUIP

YXGVZOK TBYGDDO QUD QMOV JRV XDVVGG DCBJATOODO V KDC QMWWDUAC YTW D ODCYRMG ODD YRGD

Yesterday's Cryptoquip:

ARE GROUPS OF SPECIALLY TRAINED FEMALE DEER CARRYING OUT ENEMY RAIDS CALLED COMMAND-DOES?

Today's Cryptoquip Clue: D equals E

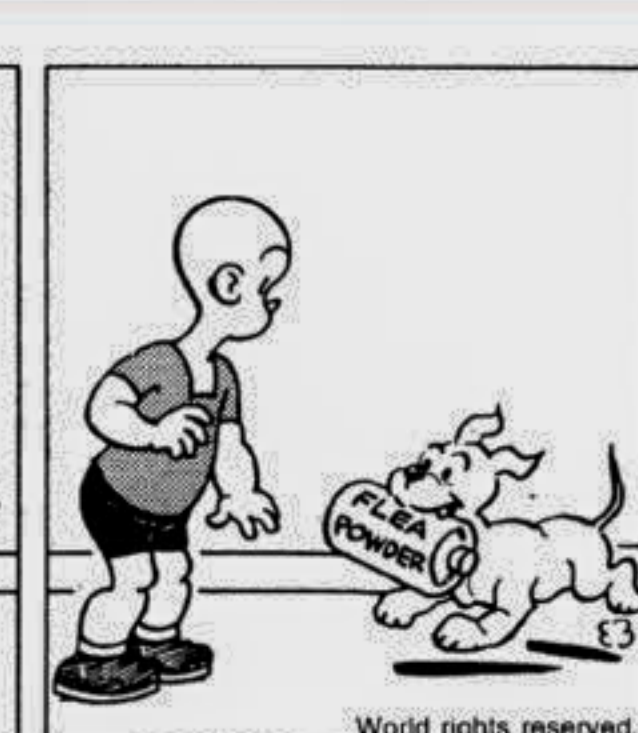
BEETLE BAILY

by Mort Walker



HENRY

by Don Trachte



QUOTABLE Quotes

"If a nation expects to be ignorant and free, it expects what never was and never will be... The People cannot be safe without information. When the press is free, and every man is able to read, all is safe."

Thomas Jefferson

North South University The first private university in Bangladesh

Admission Fall 2013

Applications are invited for admission into the following degree programs in Fall Semester starting in September 2013

Master in Development Studies

A degree program for Development Management Professionals

Minimum Admission Requirements

A Second Class in a three years' Bachelor degree OR CGPA of 2.5 in a four years' Bachelor degree AND a Second Class OR CGPA of 2.5 in Master degree in the field of Economics, Business, Environmental Studies, Social Welfare, Sociology, Anthropology, Political Science, Public administration or other related subjects from any recognized university.

MS in Economics

Minimum Admission Requirements

- A Second Class in a three years' Bachelor degree OR CGPA of 2.5 in a four years' Bachelor degree AND a Second Class OR CGPA of 2.5 in Master degree in Economics or in related disciplines from any recognized university.
- Applicants with weak background in Economics may need to take foundation courses.

Last day of application: 25th August 2013; Admission Test: (Written & Viva) 27th August 2013 at 10 A.M. For more information please visit our website

Application Forms are available for Tk. 800 at UCBL, Bashundhara Branch. A complete application includes: (i) Application form (duly filled in) (ii) two passport size photographs; (iii) attested copies of certificates and transcripts/mark-sheets.

For Further Information, Please Contact Department of Economics

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